


21. A discharge valve as set forth in Claim 20 wherein the pressure drop is more than 5 bars.
22. A discharge valve as set forth in Claim 21 wherein the pressure drop is a maximum of 50 bars.
23. A discharge valve as set forth in Claim 22 wherein the pressure drop is between 10 and 30 bars.
24. A discharge valve as set forth in Claim 20 wherein a check valve is provided that is independent of the discharge valve, said check valve, in an intake direction to fill a cylinder, opening a by-pass, by-passing the flow resistance and closing the by-pass in a discharge flow direction out of the cylinder.
25. A discharge valve as set forth in Claim 24 wherein the check valve is resiliently biased in a closed position.
26. A discharge valve as set forth in Claim 20 wherein the flow resistance is a sintered body or a pressure-resistant diaphragm.
27. A discharge valve as set forth in Claim 26 wherein the flow resistance at least partially comprises plastic material, ceramic or metal.
28. A discharge valve as set forth in Claim 26 in which the flow resistance comprises a sintered body having an average pore size in the range of between 1 and 10 μm .
29. A discharge valve as set forth in Claim 28 wherein the sintered body has a porosity of between 10 and 80%.

30. A discharge valve as set forth in Claim 28 wherein the sintered body has a porosity of between 10 and 40%.

31. A discharge valve as set forth in Claim 26 wherein the flow resistance is in the form of a valve body movably accommodated in a valve seat.

32. A discharge valve as set forth in Claim 31 wherein the flow resistance is biased in the CO₂ discharge flow direction.

33. A discharge valve as set forth in Claim 31 wherein the flow resistance has a substantially tapered surface for reception in the valve seat.




34. A discharge valve as set forth in Claim 20 wherein the valve element (10) is arranged on a side of the discharge valve which is remote from the CO₂ pressure cylinder, and wherein the flow resistance is arranged on a side of the discharge valve, which is towards the CO₂ pressure cylinder.

35. An attachment portion for attachment to a discharge valve for CO₂ pressure cylinders, wherein the attachment portion can be fixedly and sealingly connected to the discharge valve and has a flow resistance therein for causing a pressure drop of at least 1 bar from the pressure cylinder independently of the discharge valve.

36. The attachment portion of Claim 35 wherein the pressure drop is from 5 to 50 bars.

37. An attachment portion for a discharge valve as set forth in Claim 36 wherein the attachment portion has a male screwthread which corresponds to a female screwthread at an end of the discharge valve towards the CO₂ pressure cylinder.

38. An attachment portion as set forth in Claim 36 wherein a maximum outside diameter of the attachment portion is smaller than an inside diameter of a screwthread of the pressure cylinder.

 39. An attachment portion as set forth in Claim 35 wherein on a side remote from the discharge valve the attachment portion has a female screwthread whose diameter and pitch correspond to a female screwthread at an end of the discharge valve body remote from the discharge valve.

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Respectfully submitted,



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